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**TB CARE I**

# **TB CARE I - Zambia**

**Year 2**

**Annual Report**

**October 1, 2011 – September 30, 2012**

**October 30, 2012**

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## List of Abbreviations

ACSM	Advocacy Communication and Social Mobilization
CDC	Centers for Disease Control and Prevention
CIDRZ	Centre for Infectious Disease Research
DMO	District Medical Office
EQA	External Quality Assessment
KNCV	KNCV Tuberculosis Foundation
MDR-TB	Multi-drug resistant Tuberculosis
MoH	Ministry of Health
MSH	Management Sciences for Health
NTP	National TB control Program
IC	Infection Control
PEPFAR	President's Emergency Fund for AIDS Relief
PITC	Provider Initiated Testing and Counseling
PMDT	Programmatic management of drug resistant TB
PMO	Provincial Medical Office
SOPs	Standard Operating Procedures
TB CARE I	Tuberculosis CARE
TB CAP	Tuberculosis Control Assistance Project
TB IC	Tuberculosis Infection Control
TWG	Technical Working Group
USAID	United States Agency for International Development
WHO	World Health Organization

## **Executive Summary**

The second year of the TB CARE I project started in October 2011 with an obligated amount of \$3,209,000. The project received additional PEPFAR funding of \$2,000,000 to support a national TB Prevalence Survey (\$1,000,000) and procurement of Anti-TB drugs (\$1,000,000). TB CARE I was also awarded \$496,659 for a TB infection control (TB IC) demonstration project. The total obligated amount for Year two was \$5,705,659. The project continued to operate under the guidance of the United States Agency for International Development (USAID) Mission and the Ministry of Health to support the National Tuberculosis and Leprosy Control Program (NTP) in implementing a number of activities at national, provincial and district levels in line with the National TB Strategic Plan (2011 to 2015). TB CARE I support was focused both at national level and in six target provinces, namely Central, Copper belt, Luapula, Muchinga, Northern and North Western provinces. The coordinating partner in Zambia is FHI360 and the three collaborating partners are KNCV Tuberculosis Foundation, Management Sciences for Health (MSH) and the World Health Organization (WHO). During the second year of project implementation, the project received additional PEPFAR funding of \$4,650,000 to implement a three year project called the 3 I's that refers to intensified case finding, infection control and isoniazid preventive therapy. TB CARE I achieved the following key results by technical area:

### **Laboratory**

**Expected Outcome:** Ensured capacity, availability and quality of laboratory testing in country needed to support the diagnosis and monitoring of TB patients:

**Achievements:** TB CARE I reached the targeted number of facilities enrolled into the External Quality Assessment program pegged at 135 diagnostic facilities in the target provinces. The proficiency of smear microscopy in facilities that are performing greater than 95% correct microscopy results increased from 73.6% in quarter one to 80.6% in quarter two. A total of 91 staff received various skills based trainings to enable them contribute effectively to attainment of quality laboratory testing.

### **TB Infection Control**

**Expected Outcome:** Scaled-up implementation of TB-IC strategies:

**Achievement:** The project supported the integration of TB IC plans and policies into 15 health facility action plans with a total of 370 staff oriented in TB IC (189 males, 181 females) in these facilities. A monitoring tool has been deployed in all these facilities which will be used in future to monitor and evaluate implementation of TB IC activities.

### **TB/HIV**

**Expected Outcome:** Improved diagnosis of TB/HIV co-infection:

**Achievement:** The rate of TB suspects being screened for HIV has improved from baseline 78% to 83% with the project supporting training in provider initiated HIV testing and screening and 16 district-level TB/HIV collaborative body meetings on ART initiation in HIV/TB co-infection. A WHO 3 I's protocol and related M&E framework were completed under APA 2 with assistance from a team of experts from KNCV, USAID Washington and CDC Atlanta.

### **Health System Strengthening**

**Expected Outcome:** TB control components (drug supply and management, laboratories, community care, HRD and M&E) formed integral part of national plans, strategies and service delivery.

**Achievement:** Logistical and technical support was given to NTP to plan for APA 3 in a joint planning meeting. TB CARE I supports two staff salaries; one at Chest Diseases Laboratory and the other at Tropical Diseases Research Centre. The project also supported a national data review meeting and provincial data review meetings in each of the supported provinces. The project trained 944 staff.

## Introduction

The TB CARE I project was established in Zambia in October 2010. In its second year of project implementation, TB CARE I has expanded with MSH being an additional collaborative partner supporting laboratory activities. The project continues to support the MoH, NTP in all the eight technical areas of the TB CARE I global focus, namely Universal Access, Laboratories, Infection Control, PMDT, TB/HIV, Monitoring and Evaluation, Surveillance and Operational Research, and Drug Supply and Management. TB CARE I support has focused both at national level and in six target provinces, namely Central, Copper belt, Luapula, Muchinga (formerly part of Northern Province), Northern and North Western provinces. The project supported implementation of activities in line with the national TB strategic plan (2011 to 2015). Zambia's TB burden continues to decline from 44,154 in 2010 to 43,583 in 2011. The number of sputum positive cases in 2010 was 12,639, and in 2011 was 12,046 according to the WHO Global TB Control Report 2012. The NTP has also provided 86% of TB patients with HIV testing services and a known HIV status; 64% were found HIV positive, 87% were put on Cotrimoxazole prophylaxis and 53% were given anti-retroviral therapy (ART) (according to the WHO Global TB Control Report). Challenges remain for screening of TB in HIV patients and early initiation of ART in co-infected patients. Combined efforts have been made by the NTP and the HIV/AIDS program to address these challenges.

In APA 2, the project was awarded funding for a core project in TB infection control that was implemented in Ndola District in the Copper belt province. The Copper belt province has the second highest notification of TB patients in the country. The TB IC demonstration project had fourteen interventions. By September 2012, eleven interventions had been introduced to the district and six of the fourteen planned interventions were completed. A project manager was hired to support implementation of activities, establish an electronic data management system and provide quarterly reports on project performance.

The TB CARE I project had challenges to start implementation with the additional funds for the prevalence survey and anti-TB drugs. The prevalence survey protocol required local ethical approval before funds could be spent. TB CARE I partners participated in the protocol development process and external technical support was provided by WHO and KNCV consultants. The NTP also advised to reprogram the funds for the anti-TB drugs during the year to areas related to the prevalence survey and drug resistant TB. Approval of the work plan and budget was done in January 2012 with an effect on the time for implementation of activities. Consequently the completion of activity implementation for the first and second quarters of project implementation stood at 13% and 38%, respectively. However the activity implementation improved tremendously in quarter 3 with a completion rate of 65% and this further went up in quarter 4 finishing at 78%. The project also had challenges to support planned technical visits by external consultants, especially from the KNCV Tuberculosis Foundation as the visits were postponed with conflicting NTP priorities and timing.

## Universal Access

In its second year, TB CARE I supported universal access to care by the public and private sectors, adaptation of WHO Pediatric guidelines for health care providers, and implementation of the Patient Centered Approach (PCA). Together with NTP, TB CARE I supported initiation of Advocacy Communication and Social Mobilization (ACSM) activities. The project procured 100 cooler boxes for sputum transportation for TB diagnosis.

### Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
(1.1)	Increased demand for and use of high quality TB services and improve the satisfaction with TB services provided (Population/Patient Centered Approach)	Patients' Charter is implemented Indicator Value: Score (0-3) based on definition	The Patient Charter for Tuberculosis Care (The Charter) outlines the rights and responsibilities of people with Tuberculosis	0 (2011)	2	1	The patient charter, the Literacy Tool Kit and the QUOTE Light toolkits were adapted and translated for country implementation with the support of TB CARE I. PCA activities will be implemented in the first quarter of APA 3 because the country began implementation later, following NTP approval in November 2011.
(1.2)	Increased quality of TB services delivered among all care providers (Supply)	Appropriate tools from the PPM Toolkit is implemented Indicator Value: Score (0-3) based definition disaggregated by the tools selected by NTP.	PPM toolkit has 14 generic tools. These first seven outline basic aspects of PPM implementation; Rational and Generic Approach, national Situational Analysis, Operational Guidelines, Advocacy and Communication, M&E, ISTC and Resources and Budgeting.	0 (2011)	2	1	A PPM survey was conducted by the NTP with TB CARE I support in Lusaka, Central and Copper belt provinces.

		Private providers referring suspects to government facilities		0 (2011)	Yes	Yes	The target provinces receive patients diagnosed in the private sector, though reporting and recording tools have not been distributed to the private practitioners. A survey was planned for before provision of tools. The PPM survey was conducted in September 2012. Private practitioners will be provided with reporting tools and supported to report TB cases to the NTP in APA3.
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## Key Achievements

### Patients Centered Approach

In Zambia the Patients Centered Approach (PCA) was successfully launched in three districts (Kabompo, Mwinilunga and Solwezi) of North Western Province through a stakeholders meeting held in Solwezi in August 2012. Representatives from the three districts were in attendance together with MoH and TB CARE I staff. The Ministry of Health identified principal investigators who have been spearheading the implementation of the PCA. These investigators from Ministry of Health, WHO, FHI 360, UNZA, KIT and KNCV were introduced to PCA through an introductory workshop held in February 2012. The team developed the PCA implementation protocol that was approved by the Zambia Biomedical Research Ethics Committee and the implementation of activities commenced in August 2012. A follow up workshop was held with MoH in Solwezi in August 2012 where PCA research tools and literacy materials were adapted for use in the PCA implementation. A training of 15 data collectors was held in September 2012.

### Public Private Partnership Mix (PPM)

A PPM survey questionnaire was developed by the NTP with TB CARE I support and surveys were conducted in three provinces of Lusaka, Central and Copper belt provinces in September 2012. One consultant led a team of interviewers in Lusaka and another led a team on the Copper belt and Central provinces.

### Advocacy Communication and Social Mobilization (ACSM)

The MoH, NTP prioritized ACSM in the 2011 – 2015 NTLSP. TB CARE I planned to support a number of activities in the NTLSP and agreements were held on key focus areas listed below. An implementation calendar was also agreed on. Planned activities included:

1. Develop of the ACSM strategy

2. Enhance community participation in ACSM
3. Training of HCW in ACSM
4. Situational analysis on ACSM
5. ACSM operational plan development

## **Challenges and Next Steps**

Challenges:

PCA

1. The implementation of the PCA activities began later as compared to other countries and expected completion of activities will be delayed.

ACSM

1. Implementation of planned ACSM activities was not done by the end of the year. Activities were planned to start from October 2012.

Next steps:

PCA

1. Baseline data collection takes place from 15-27 October 2012
2. Training of health care workers for implementation takes place from 5-9 November 2012
3. Implementation will run from 12 November 2012 to 15 February 2013
4. End-line data collection will take place from the 18-28 the February 2013
5. Final data analysis and report writing will be in March 2013
6. The initial report will be expected by the end of March 2013

ACSM

1. Hold a stakeholders workshop from October 8-12, 2012.
2. Conduct situational analysis.
3. Prepare ACSM strategy and operational plan and implement activities.

## Laboratories

TB CARE I has been a recognized key partner in laboratory support by the Ministry of Health and partners who are part of the Biomedical Society of Zambia and as such was given an award by the Biomedical Society of Zambia on July 21, 2012 for the outstanding contribution to the TB diagnostic services in Zambia. TB CARE I laboratory support increased the percentage of laboratories performing TB microscopy with over 95% correct microscopy results to 80.6% in second quarter compared to 73.6 % in the first quarter. In year two, the project provided support towards the introduction and use of new technologies (Xpert MTB/RIF and LED Microscopy). TB CARE I provided support through training of Ministry of health laboratory staff on LED based microscopy technique, and biosafety to ensure that the laboratory laid out plans and safe flow of work in the available room space conform to good laboratory practices and biosafety measures for performing TB microscopy activities. TB CARE I is supporting the participation of both public and private sector facilities in external quality assessment (EQA) program. Out of 135 facilities enrolled in the EQA program, seven are from the private sector and comprise the following hospitals: Wusakile Mine, Sinozam, Luanshya Mine, Malcolm Watson, Konkola Mine, Kalulushi Medical Center and Nchanga South.

## Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe )	Target Y2	Result Y2	Comments
<b>(2.1)</b>	Ensured capacity, availability and quality of laboratory testing in country needed to support the diagnosis and monitoring of TB patients	Laboratories with working internal and external quality assurance programs for tests that they provide including: a) smear microscopy, b) culture, c) DST, and d) rapid molecular test Indicator Value: Percent Numerator: Number of laboratories enrolled in EQA program meeting description above both nationwide and TB CARE areas. Denominator: All laboratories (national and TB CARE areas separately) that perform one or more of the above TB diagnostics.	Laboratories have successfully established a mechanism for performing internal quality control and are enrolled in an EQA program, which is supervised by a higher level laboratory. Participating laboratories should have met WHO standards for QC/EQA results. Both laboratories, supervising and participating, have to keep data on results for verification.	64% (2011)	100% (135/135 facilities)	100% (135/135 facilities) (2012)	TB CARE I achieved EQA in 135 out of 135 (100%) facilities under its support. The 64% target shown at baseline is a national level target.

<b>(2.2)</b>	Ensured the availability and quality of technical assistance and services	SRLs that are meeting the terms of reference including conducting technical assistance visits and providing proficiency testing panels Indicator Value: Number of SRLs	SRLs have implemented ISO15189 standards and meet WHO accreditation requirements for SRLs. Specifically, these SRLs conduct TA visits and provide Quality Assurance schemes to other reference laboratories (i.e. sending of proficiency testing panels).	1 (2011)	1 (2012)	1 (2012)	The SRL in Uganda is providing technical assistance to the Zambia NRL.
<b>(2.3)</b>	Ensured optimal use of new approaches to the laboratory confirmation of TB and incorporation in national strategic lab plans	New technologies have been introduced Indicator Value: Number for each technique below by Central, Provincial, district and Peripheral levels 1. TB culture 2. First line DST 3. Second-line DST 4. HAIN MTBDR +plus 5. GeneXpert 6. LED microscopy	New technologies for diagnosis of TB are implemented and routinely used for diagnosis. Training of staff has been conducted and a quality management system has been established. The indicator should be answered individually for every technique that has been implemented at the different health care levels mentioned in column 2.	TB culture (6) First line DST (6) Second-line DST (1) HAIN MTBDR plus (2) GeneXpert (1) LED microscopy (12)	HAIN MTBDR plus (3) GeneXpert (3) LED microscopy (20)	HAIN MTBDR plus (2) GeneXpert (1) LED microscopy (17)	TB CARE I supported roll out of five extra LED microscopes into the facilities

## **Key Achievements**

TB CARE I laboratory staff have played a strategic role in strengthening the laboratory services in TB control in 2012 with the introduction of MSH as a collaborating partner. TB CARE I supported the training of 55 laboratory staff in the new diagnostic tool of LED based microscopy exceeding a target of 45 in year two. 30 laboratory staff were trained in biosafety for smear microscopy laboratories. Baseline assessment in smear preparation and fixation was conducted in Mumbwa and Serenje Districts. The two provinces have limited laboratories providing microscopy services and therefore, the staff to be trained will support fixation and transportation of sputum smears to the nearest diagnostic facilities.

TB CARE I has been supporting the establishment of a national TB specimen referral system and a national plan was developed by the National Reference Laboratory with partner support. TB CARE I laboratory staff have been actively involved and have participated in a baseline assessment of TB specimen referral system in Northern, Copper belt and Central Provinces. The results of the assessment will guide the establishment of the referral system in the pilot provinces.

TB CARE I also supported the implementation of the external quality assessment (EQA) in 135 facilities in the five supported provinces. This support provided a scale up to 44 district level laboratories and 91 peripheral laboratories signifying a 100% EQA coverage in TB CARE target provinces. Following EQA findings, follow up supervisory technical visits were conducted by the provincial laboratory staff to three laboratories in Luapula province and five laboratories in Copper belt province. The eight laboratories had recorded high false positive results and corrective action was provided.

TB CARE I procured two GeneXpert machines for two points of care facilities in two provinces. A technical working group (TWG) was established to provide the country strategy and the roadmap for GeneXpert use. The TWG will advise on the placement and use of the GeneXpert machines. Reporting of test results will begin in January 2013.

## **Challenges and Next Steps**

1. The recording and reporting system in the EQA program from Provincial laboratories (Supervisors) to the National TB Reference Laboratory is not standardized. TB CARE I plans to support NRL to strengthen the EQA program by customization of the TB CARE I Laboratory Toolbox. Trainer of trainers (TOT) trainings will be conducted to build capacity for staff at National TB Reference and provincial laboratories. TB CARE will support the establishment of the specimen referral system including the development of standard Operating Procedures (SOPS) and procurement of packaging materials.
2. Following the establishment of the Xpert technical working group, TB CARE will support the development of the draft national Xpert guidelines and the final implementation of the technology. Trainer of Trainers (TOT) training will be conducted in APA 3 quarter 1.
3. Some diagnostic facilities face a critical shortage of commodities and use of expired reagents. Therefore, TB CARE will support capacity building by strengthening national level quantification and procurement of supplementary laboratory commodities for 3 reference laboratories and microscopy centers.

## Infection Control

TB CARE I prioritizes TB infection control in its program implementation activities. During the year the project supported the scale up of TB IC activities to 15 health facilities. Focus areas were orientation of health care workers in TB IC; drafting of facility TB IC plans and policies which included IC focal person budget and monitoring plan. Activities also included plans to refurbish 5 facilities to incorporate TB IC measures.

### Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
<b>(3.2)</b>	Scaled-up implementation of TB-IC strategies	Key facilities with IC focal person, implementation plan, budget, and monitoring system Indicator Value: Percent Numerator: The number of selected categories of key facilities with all three (a+b+c) interventions in place. Denominator: Total number of key facilities of the selected categories	Key facilities such as MDR treatment facilities, ART clinics, DOTS clinics, C/DST, GeneXpert sites, prisons, and tertiary referral hospitals must have at least a) a designated IC focal person responsible for TBIC, and b) a budgeted facility implementation plan and c) a monitoring system reporting on TB IC implementation	7% (3/43) (2011)	23% (10/43)	35% (15/43)	Exceeded the annual target with orientation of 5 more facilities in TB IC with a total of 15 facilities oriented in the year.
<b>(3.3)</b>	Strengthened TB IC Monitoring & Measurement	Annual reporting on TB disease (all forms) among HCWs is available as part of the national R&R system Indicator Value: Yes/No	NTP must report the number of HCWs ("Any full or part-time employee engaged in facility or community based health care provision, including students and volunteers") who acquired TB disease (all forms) in the last year as part of their existing recording and reporting system.	No (2011)	Yes	No	At present there is no data available on this activity. TB CARE I plans to collect some data from the Ndola TB IC core project.

<b>(3.4)</b>	Improved TB-IC human resources	A team of trained trainers in TB IC is available Indicator Value: Yes/No	NTP must have a team of trained trainers who are competent in TB IC and involved in a training program for HCWs which includes TB IC training. The trainers may be MOH employees or working for collaborative partners in the country	Yes (2011)	Yes	Yes	Two MoH staff were trained as trainers in TB IC
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### Key Achievements

TB CARE I is a key partner in the scale up of TB infection control from national, provincial, district to health facility level. A total of 15 facilities received support in APA 2, thus exceeding the target of 10 facilities. 370 staff were oriented in TB IC (189 males, 181 females), and staff with direct patient contact were included in the trainings. The process involved TB CARE I working with the district TB/HIV/Leprosy Officers in the particular districts and also with partner involvement from the PEPFAR funded ZPCT II project. Eight (8) facilities were assessed for renovations to incorporate TB IC measures and renovations will be done in 5 during APA 3.

TB CARE I was also awarded funding to implement the TB IC demonstration project in Ndola District with 14 key intervention areas. The project was led by the PMU TB IC Advisor and included participation of TB CARE I and II partners. Of the 14 intervention areas planned, eleven were introduced in the demonstration project and 6 were implemented completely by September 2012. Activities included a provincial start up meeting with representatives from the fifteen target facilities (intervention 1), baseline facility assessment (intervention 2), training of health care workers and community volunteers (intervention 3), incorporation of facility implementation plans (intervention 4) in the 2013 district implementation plan, implementation of IC practice work (intervention 5), and quarterly supervisory visits and data collection (project intervention 7). The project has managed to hand over some of the project activities to the Ndola DMO for continued implementation. TB CARE I will also adopt best practices from this core project for implementation in other target provinces. TB CARE I supported capacity building for provincial level staff in TB IC in Pretoria South Africa who are also key facilitators in provincial level trainings. In addition, five MoH and two TB CARE I staff attended PMDT training in Kigali, Rwanda in July 2012.

### Challenges and Next Steps

Key Challenges:

1. Delays in the tender procedures for the renovation work

Next steps

1. The project will support the completion of the renovation work in all the sites identified

2. Agreed implementation areas for TB IC demonstration project with the DMO are listed below:

DMO and TB CARE I agreed that the following TB IC activities shall be managed by the DMO. These are:

- i) Conducting Health facility quarterly supervision including audits for compliance with work practices and collection of TB/HIV and Laboratory project data
- ii) Maintenance on a regular schedule and repairs, if needed, of the 12 health facilities that will be renovated by TB CARE I
- iii) Organizing a TB IC review and planning meeting with facilities, April/May 2013. The results of the meeting will feed into the budgeted 2014 District Action Plan. While TB CARE I will provide logistical support.
- iv) Hosting an end evaluation symposium organized by the NTP in September, 2013 for National and provincial stakeholders to share approaches, tools and results for possible application to their respective settings.

While TB CARE I shall be responsible for:

- i) Backstopping facilities on safe work practices compliance
- ii) HCW TB screening in close collaboration with DMO while strictly following the approved screening protocol
- iii) Organizing a joint participatory review by partners of which the findings and recommendations will feed into the above end evaluation symposium
- iv) Developing IEC messages and materials for community TB IC in close collaboration with DMO through the country work plan.
- v) Presentations at international conferences and two publications: one paper on lessons learned from TB IC implementation, and one on HCW screening

While TB Care I and II shall be responsible for:

- i) Implementing the FAST strategy in Twapia clinic

## Programmatic Management of Drug Resistant TB (PMDT)

PMDT is an integral part of the support that the project provides to the NTP. During year two, the project continued to support the NTP in the provision of wards for the MDR-TB as the tender process for renovations were completed. Consultants from KNCV also visited the project to assist the NTP in finalizing guidelines and developing SOPS for MDR-TB management.

### Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
(4.1)	Improved treatment success of MDR	MDR TB patients who are still on treatment and have a sputum culture conversion 6 months after starting MDR-TB treatment Indicator Value: Percent Numerator: Number of MDR TB patients in a cohort who are still on treatment and had culture conversion latest at month 6 (having had 2 negative sputum cultures taken one month apart and remained culture negative since) Denominator: Total number of MDR patients who started treatment in the cohort.	The percentage of TB patients suspected of MDR dying between request for lab examination and start of MDR treatment.	Not yet available (2011)		Data not yet available	TB CARE I supported printing and distribution of MDR-TB registers and reporting forms. The project also planned to support reconstruction of patient data. However this will only be done in October, 2012

		MDR TB patients who have completed the full course of MDR TB treatment regimen and have a negative sputum culture Indicator Value: Percentage Numerator: Number of MDR TB patients in a cohort who completed a course of MDR treatment and who fit the WHO criteria for cure or completed treatment Denominator: Total number of MDR patients who started treatment in the cohort	MDR TB patients who have completed the full course of MDR TB treatment regimen and have a negative sputum culture	Data not yet available (2011)		Data not yet available	The NTP has not yet collected data on MDR-TB patient outcomes. Following the reconstruction of patient records in October 2012, the project will be able to assess if this data is available.
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### Key Achievements

In APA 2, with support from TB CARE I, NTP completed the tender processes for the rehabilitation of infrastructure at University Teaching Hospital in Lusaka and Kabwe General Hospital in Kabwe for the management of MDR-TB patients; renovations will commence in APA 3. Technical assistance to finalize national MDR-TB guidelines and prepare SOPs was provided by Dr. Victor Ombeka and Dr. Amos Kutwa from KNCV Nairobi regional office in May to June 2012.

TB CARE I also procured 6,120 respirators as personal protective equipment for the two facilities providing MDR-TB patient care.

### Challenges and Next Steps

1. Tender procedures took longer than anticipated delaying the startup of the renovation process.
2. Renovations will commence in APA 3 quarter 1

## TB/HIV

TB screening of HIV patients and HIV testing of TB patients are among the top priorities of the project. In APA 2, the project focus was on capacity building for both health care workers and community volunteers, to ensure TB/HIV co-infection is identified early and managed well.

### Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
(5.2)	Improved diagnosis of TB/HIV co-infection	5.2.2 TB patients with known HIV status Indicator Value: Percent Numerator: Total number of all TB patients registered over a given time period who were tested for HIV (after giving consent) during their TB treatment Denominator: Total number of TB patients registered over the same given time period.		83% (2011)	85% (2012)	83%	Still below the target, however, in order to strengthen co infection management, TB CARE I trained 133 health care workers and in Provider initiated Testing and Counseling (PITC) and 67 adherence support workers who are community volunteers working in the ART clinics.
		TB patients who are HIV positive Indicator Value: Percent Numerator: Total number of all TB patients registered over a given time period who test HIV-positive (after giving consent) during their TB treatment Denominator: Total number of TB patients registered over the same given time period who are tested for HIV (after giving consent).		65% (2011)		65%	As indicated above, the project supported TB patients to know their status by increasing the number of health care workers trained in PITC who would be testing the TB patients.

		Suspected TB patients screened for HIV Indicator Value: Percent Numerator: Total number of all TB suspects registered over a given time period tested for HIV (after giving consent). Denominator: Total number of TB suspects registered over the same given time period.		78% (2011)		83%	Under TB CARE I support NTP rolled out TB suspect registers. The message to all facilities which is also stressed in the TB/HIV collaborative meetings is that all TB suspects be offered an HIV test as well.
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## Key Achievements

In year two, as part of strengthening TB/HIV coordinating bodies, TB CARE I provided support to 16 district-level TB/HIV meetings. These meetings were held in 12 districts: Kitwe, Kalulushi, Luanshya, Mufulira and Ndola districts in the Copper belt province; Kasama, Luwingu, Mbala, Mporokoso, Kaputa and Mungwi districts in the Northern Province, and Isoka in Muchinga Province. The meetings focused on the following key areas: prompt diagnosis and treatment of TB in HIV clinics, HIV testing in TB corners, TB infection control in HIV clinics, and proper documentation by both HIV clinics and TB corners (documentation which unfortunately has been poor in most facilities). It is during these meetings that data for the quarter is presented. HIV testing in TB clinics went up in the reporting year from 83% to 85%. ART initiation in TB/HIV co-infection also went up from 47% to 53%. These are still below what must be optimal in both settings. These meetings (TB/HIV Coordinating Body) discuss successes, challenges and strategies that will improve this indicator.

In order to improve HIV testing in TB clinics, TB CARE I supported training of Health Care Workers in Provider Initiated Testing and Counseling (PITC) in the Copper belt, North Western and Luapula provinces. Further, the project trained community volunteers involved in intensified TB case finding among HIV infected persons. 270 community health workers were trained in the target provinces in community DOTS. Among those trained included the PEPFAR funded Corridors of Hope (COH III) project where 22 community workers were trained in July 2012 in Kapiri Mposhi, Central province. Overall this program area trained a total of 400 (172 males and 228 females).

## Challenges and Next Steps

Challenges:

The key challenges faced by this program area included discrepancies in allowances provided to training participants under the GRZ and USAID. Two trainings planned under APA 2 in this technical area could not take place due to postponements by one of the target provinces.

Next Steps:

- Harmonization of allowances for training participants is critical to the successful implementation of future capacity building activities.
- The two trainings postponed under APA 2 will be conducted in APA 3.

## Health System Strengthening (HSS)

TB CARE I recognizes the importance of strengthening health systems. Inadequacies in the health system are one of the main obstacles to implementing TB control strategies. TB CARE I focused mainly on capacity building during year two of program implementation.

### Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
(6.2)	TB control components (drug supply and management, laboratories, community care, HRD and M&E) formed integral part of national plans, strategies and service delivery of these components	People trained using TB CARE funds Indicator Value: Number of people Numerator: Number of people trained disaggregated by gender and type of training.		115 (2011)	656	753	The project reprogrammed funds towards more trainings in PITC because of the demand from the target provinces.

### Key Achievements

TB CARE I, TB CARE I partners, NTP, CDL and PMO representatives including TB and laboratory focal persons took part in a joint planning meeting in June 2012 to plan for year three of TB CARE I support and activities. TB CARE I supported the World TB Day commemoration for 2012 which took place in Solwezi in the month of March 2012. TB CARE I staff took part in the commemoration. TB CARE I staff took part in the USAID Rules and Regulations training held in Lusaka in February 2012.

A total of 944 people participated in various TB CARE I supported trainings in APA 2. The trainings covered the following areas:

- Universal Access: PCA, ACSM,
- Laboratory: Biosafety, LED microscopy, New diagnostics, GeneXpert
- TB IC: facility based TB IC, TOT in TB IC
- PMDT: PMDT training
- TB/HIV: PITC, DOTS, WHO TB modules for community volunteers, community TB IC
- M&E and Operational Research related trainings

### Challenges and Next Steps

TB CARE I will continue to support staff capacity building for the MoH and for TB CARE I staff.

## Monitoring & Evaluation, Surveillance and OR

TB CARE I recognizes the importance of monitoring, evaluation, surveillance and research; in APA 2 the project continued to provide support for routine surveillance and strengthening provincial data quality and reporting. TB CARE I consultants from FHI360 and KNCV worked with the project to lead the Operational Research implementation process with the NTP.

### Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
<b>(7.1)</b>	Strengthened TB surveillance	Diagnosed cases captured by routine surveillance system Indicator Value: Percent Numerator: Number of cases in the routine surveillance system Denominator: Total number of cases in the routine surveillance system including laboratory and clinical diagnostic registers including in private sector.		73 % (2010)	85%	73%	The 73% is the WHO Global Report 2012 rate given for Zambia. TB CARE I has supported review of national surveillance tools through quarterly provincial data review meetings held by all target provinces this year, ensuring that the reported data has been verified by individual provinces with NTP support.
<b>(7.2)</b>	Improved capacity of NTPs to analyze and use quality data for management of the TB program	A data quality audit at central level has been conducted within the last 6 months Indicator Value: Yes/No		Yes (2011)	Yes	No	USAID mission planned to conduct a data quality audit during the year of implementation. However, dates were advised for October by the NTP because of many priorities and limited NTP staff at national level.
<b>(7.3)</b>	Improved capacity of NTPs to perform operational research	Number of staff trained in proposal writing Description: Indicator Value: number Numerator: number of staff trained in operational research	None	2011	20	21	The NTP initiated OR activities in the country with TB CARE I support in April 2012 with two workshops held in the year, to introduce OR and support protocol development, respectively.

## **Key Achievements**

TB CARE I strengthened data quality and reporting at provincial level in all the target provinces through financial and technical support to provincial TB HIV technical review meetings by the WHO country TB officer. The project also supported a national TB/HIV review meeting where MoH staff members from the national, provincial and district level and local partners supporting TB and HIV activities were in attendance. Support was also provided for supervisory visits by provincial representatives to district facilities in all five provinces and key findings shared with PMOs for follow up. MDR-TB reporting and recording tools were printed and distributed to the two MDR-TB treatment facilities.

Operations research:

TB CARE I consultants from FHI360 and KNCV led the OR implementation process with the NTP. Two workshops were held in the year with a total of 40 participants. Four subjects were identified for operations research focus in the first workshop and 17 MOH and Technical staff from implementing organizations participated in the second workshop that focused on protocol development in the four areas below:

1. To generate evidence that will inform the design of intervention to reduce delays in turnaround time of TB sputum smear microscopy process for diagnosis and follow
2. To gather evidence to inform interventions to improve the identification and referral of MDR suspects for diagnosis
3. To evaluate a household-based intervention to improve access to and uptake of TB screening and HIV testing among household contacts of smear positive TB patients
4. To identify barriers to timely screening and diagnosis of TB in prison inmates in two Provinces (Copper belt and Southern)

## **Challenges and Next Steps**

The project will continue to enhance the national TB surveillance system through support supervisory visits, quarterly meetings and implementation of operations research.

## Drug supply and management

The project received additional funds totaling \$ 1,000,000 for the procurement of anti-TB drugs. This activity was not implemented because NTP also received support from the Global fund to procure anti-TB drugs, and the TB CARE I funds allocated for this purpose had to be reprogrammed.

### Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
<b>(8.1)</b>	Ensured nationwide systems for a sustainable supply of anti-TB drugs	Quarterly national stock information available Indicator Value: Number (as months of stock for FLDs and SLDs separately)		12 months, FLD (2011)	12 months, FLD		The project had challenges to support anti-TB drug procurements for the NTP as there were multiple funding support for the drug procurement. The USAID funds were reprogrammed

### Key Achievements

A Global Drug Facility (GDF) mission was conducted by KNCV consultant in May 2012. The purpose of the mission included the following:

- Review GDF support with key officials
- Assess adherence to GDF terms/conditions
- Provide TA for program/case/drug management.
- With NTP, determine drug needs and prepare a requisition for those drugs
- Address issues raised by GDF TRC and those from previous missions

Some of the recommendations given to the MoH are listed below:

- MoH to strengthen staff of NTLP CU in line with new policy of completing the staff establishment
- MoH to allocate in the coming years a gradually increasing amount of money to ensure sustainable drug supply from own government sources
- In case of funding gap in 2013, NTLP to apply for emergency adult TB drug grant from GDF to avoid depleting buffer stock

Recommendations for partners included the following:

- TB CARE I could support the purchase of laboratory supplies to cover the gap of GF R7
- UNDP to be transparent on costs for purchase of TB drugs
- Information sharing on planned drug orders with all parties concerned

## **Challenges and Next Steps**

NTP continues to rely on the Global fund for procurement of anti-TB drugs and during this year of project implementation the NTP has procured sufficient drug stocks that prevented the use of the funds made available through TB CARE I to support drug procurement. The project reprogrammed the funds to procure equipment to support PMDT and the national prevalence survey. TB CARE I will continue to collaborate with the NTP and UNDP to support national drug management.